

der'd, and afterwards broke out with red and livid Eruptions; which sufficiently shew'd, that not only the Liquor itself, but the *Effluvia* too, were in the highest Degree subtle and malignant.

V. *The Variation of the Magnetic Needle, as observed in Three Voyages from London to Maryland, by Walter Hoxton.*

N. B. The Longitude is reckon'd from the *Lizard*.

*The First Voyage 1732.*

Latitude. North.	Longitude. West.	Variation. West.	
° ' ° ' ° '	° ' ° ' ° '	° ' ° ' ° '	
39 53	27 16	12	{ In Sight of the Island <i>Corvo</i> . Difference of Longitude from it 35 Minutes West.
37 49	27 45	14	
35 19	39 20	13	
32 40	50 27	8	
34 40	56	6 30	
35 4	65	4 28	
36 50		4 42	{ Distance from Cape Henry seven Leagues.
		4 58	{ In the Bay of <i>Chesapeake</i> , three Miles below the Mouth of <i>Potomack</i> River.
		4 47	{ Off the Mouth of <i>Potuxon</i> River.

*Return.*

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*Return.*

Latitude. North.		Longitude. West.		Variation. West.	
°	'	°	'	°	'
36	11	56	20	9	22
34	52	53		6	17
34	33	52		6	15
34	45	51		6	5
34	36	50		6	23
36		49	30	7	37
37	20	48		9	23
38	4	48	20	10	
39	27	47	40	10	23
40	8	45	40	10	38
40	30	45		13	4
42	32	42	20	11	43
42	40	42		12	39
43	27	40	20	13	24
43	32	39	50	13	42
49	48	9		16	30

*The Second Voyage 1733.*

Latitude. North.		Longitude. West.		Sun's Alti- tude.	Variation. West.	
°	'	°	'		°	'
48	12	3	18	31	18	
46	7	4	30	25	16	35
44	4	7		22	16	22
42	17	9		33	16	36
40		12		37	15	38
38	5	14	20	41	14	51

Latitude. North.		Longitude. West.		Sun's Alti- tude.	Variation. West.	
°	'	°	'		°	'
37	36	14	45	25	13	24
36	32	15	52	47	13	17
36	16	16	12	19	13	
34	2	21	51	35	11	34
34	4	23	18	27	9	51
35	6	30	33	21	10	28
35	12	31	38	20	9	48
34	23	31	22	32	10	23
33	34	32	25	20	8	18
30	19	31	26	23	7	12
29	17	31	11	24	6	45
32	24	37	55	25	6	39
32	50	38	35	25	10	36
32	11	40	23	30	11	
31	19	41	9	25	6	42
32	25	43		26	5	
34	5	47	20	25	8	49
33	45	49	24	31	10	45
35	1	54	10	30	8	33
34		54	4	41	5	54
33	41	54		22	5	12
33	51	55		23	6	35
34	59	60		36	7	2
36	32	59	30	23	7	49
37	1	61	10	33	6	45
37	5	66	22	44	5	25
36	53	66	40	30	4	45
36	36			30	5	

In the Soundings,  
20 Leagues off  
Cape Henry.

*Return.*

*Return.*

Latitude. North. ° ,	Longitude. West. ° ,	Sun's Altitude.	Variation. West. ° ,
38 9	57 40	24	11
38 48	55 50	25	10
42 13	43 48	29	14
44 21	33 17	19	14 26
45 46	28 17	23	15 45
49 51	Off Plymouth.		13 27
50 20	Off Portland.		13

*The Third Voyage 1734.*

Latitude. North. ° ,	Longitude. West. ° ,	Sun's Altitude.	Variation. West. ° ,
39 53	6 37	28	14 30
37 50	6 40	21	14
36 58	10 30	26	15
34 56	13	30	13 40
33 33	16 10	27	12 10
33 9	17 38	27	9 13
32 44	18 6	24	9 51
31 39	20 13	34	9 49
30 55	22 53	25	9 6
30 17	25 26	36	8 39
30 1	27 14	28	7 56
30 1	27 54	27	6 48
29 55	30 20	24	7 41
29 57	33 12	32	8
29 51	37 37	32	5 41

Latitude. North.		Longitude. West.		Sun's Alti- tude.	Variation. West.	
o	'	o	'		o	'
28	55	39	28	27	5	23
29	8	40		26	7	12
31	10	44	46	30	8	6
31	7	46	45	22	4	46
30	42	49		38	4	40
30	29	49	48	22	4	
30	31	52	10	25	4	49
30	18	53		25	4	45
30	23	55		25	4	22
30	58	57	30	22	4	52
37	9	68		38	4	50

VI. *Some Thoughts and Conjectures concerning the Cause of Elasticity*, by J. T. Defaguliers, LL. D. F. R. S.

**A** Ttraction and Repulsion seem to be settled by the Great CREATOR as first Principles in Nature; that is, as the first of second Causes; so that we are not solicitous about their Causes, and think it enough to deduce other Things from them. If Elasticity was admitted as a first Cause, (as it is by some) it is thought we should admit of too many principal Causes in Nature, which is contrary to the Rules of good Philosophy. Philosophers therefore have endeavour'd to deduce Elasticity from Attraction, or from Repulsion, or from both. It is observ'd, that the same Particles that repel each other strongly,

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